

WHAT IS CLAIMED IS:

1. A resin sealing apparatus comprising:

a mold having a main cavity in which a portion of a semiconductor device to be sealed with a resin is disposed;

5 and

an external-shape regulating member detachably accommodated in the main cavity of the mold, for forming a new cavity within the main cavity.

10 2. The resin sealing apparatus according to claim 1, wherein a surface of the external-shape regulating member that faces an inner-wall surface of the main cavity is formed along the inner-wall surface of the main cavity.

15 3. The resin sealing apparatus according to claim 1, wherein when the external-shape regulating member structures a part of the new cavity, a sealing member is disposed in a gap between edges of the external-shape regulating member and the inner-wall surface of the main  
20 cavity.

4. The resin sealing apparatus according to claim 1, wherein when the external-shape regulating member structures a part of the new cavity, a stage is provided  
25 on the inner-wall surface of the main cavity, and edges of

the external-shape regulating member are installed on the stage.

5. The resin sealing apparatus according to claim 1,  
5 further comprising a close-contact holding unit which holds the external-shape regulating member accommodated in the main cavity of the mold on the inner-wall surface of the main cavity in close contact with this surface.

10 6. The resin sealing apparatus according to claim 1, wherein a plurality of kinds of external-shape regulating members are provided, and the plurality of kinds of external-shape regulating members are selectively accommodated in the main cavity.

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7. A resin sealing apparatus comprising:

a pair of molds having a main cavity therebetween in which a portion of a semiconductor device to be sealed with a resin is disposed; and

20 a spacer member detachably disposed between the pair of molds, for forming a new cavity between the pair of molds.

8. The resin sealing apparatus according to claim 7, wherein a plurality of kinds of spacer members are prepared,  
25 and the plurality of kinds of spacer members are selectively

disposed between the pair of molds.

9. A resin sealing apparatus comprising:

5 a pair of molds for forming a main cavity between the molds, wherein a molten resin is charged into the main cavity and the molten resin is cured in a status that a portion of a semiconductor device to be sealed with the resin is disposed in the main cavity of the molds,

10 wherein a portion of the mold that constitutes a peripheral wall of the main cavity is provided such that the height of this portion can be changed.

10. The resin sealing apparatus according to claim 9, wherein the portion of the mold can be expanded or contracted.

15 11. The resin sealing apparatus according to claim 9, wherein the portion of the mold is disposed such that this portion can proceed to and recede from a predetermined reference mold section.

20 12. The resin sealing apparatus according to claim 9, wherein the portion of the mold comprises:

a lifting member provided such that it can proceed to and recede from a predetermined reference mold section;

25 and

a resin film that constitutes the main cavity inside the lifting member and on the reference mold section.

13. The resin sealing apparatus according to claim 12,  
5 further comprising a film-exchanging unit which exchanges the resin film each time when the molten resin is charged and cured in the main cavity.

14. The resin sealing apparatus according to claim 12,  
10 wherein the resin film is composed of a material that can be exfoliated from the sealed resin.